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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,947	01/20/2004	Brian Bowman	P2028/N9780	1250

7590 03/22/2005

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EXAMINER

HOANG, TU BA

ART UNIT PAPER NUMBER

3742

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SN

Office Action Summary	Application No. 10/760,947	Applicant(s) BOWMAN ET AL.	
	Examiner Tu Ba Hoang	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-19 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/22/04</u> . | 6) <input type="checkbox"/> Other: ____. |

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Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: on page 1, the entire first paragraph [001] should be deleted because this section contains the information which has and should have been provided in the Oath or Declaration instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 10, 12 and 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitations "the layers" and "the spiral wound sheet" in lines 1-2. There are insufficient antecedent bases for these limitations in the claim or from the preceding claim. It is unclear that the wound seal having a plural layers and formed in a single wound sheet.

In claim 12, there is insufficient antecedent basis for "the desired thickness" recited at line 2. Such "desired" thickness should be clearly defined.

In claim 13, there is insufficient antecedent basis for "the electrodes" recited at line 2 in the claim. It is noted that any electrode joint would have at least an electrode and other connection part or two or more electrodes in order to form such joint. However, the number of electrodes can also be changed. It is unclear for what "the electrodes" recited would be included. The phrase "than that of electrodes" recited at line 2 also renders the claim indefinite because it is unclear whether "that" also implied the "oxidation rate" of the electrode. It is suggested that "that" to be replaced by "the oxidation rate" for clarification purpose.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-7, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Stroup (US 2,836,806). Stroup shows an electrode joint 12 or 12a (Figure 1 or 3) comprising two joined graphite electrodes 10a, 11a (shown in Figure 3) and having a seal or pad (15 or 15a) interposed between the electrodes, wherein the seal or pad comprising a material which is compressed particles of exfoliated graphite (column 1, lines 64-65 and column 2, lines 8-20, i.e. skeletal powders or particles) so that lower electrical resistance is obtained (column 1, lines 62-63, i.e., the electrical conductivity of the pad is greater in the direction extending between the electrodes than it is in the direction orthogonal thereto due to the pad locations), each of the joined electrodes 10, 11 or 10a, 11a comprises a female threaded socket 14 or 14a, a pin or nipple or stub 12 or 12a comprising opposed male threaded sections which engage the female threaded socket of the electrodes to form the joint, and since both the electrodes and the seal or pad are made of the same graphite material, it is inherent that the pad or seal has an oxidation rate at least equal to or less than of the electrodes and due to its thickness and surface area contact, the electrical conductivity of the seal or pad 15 or 15a is also greater in the direction extending between the electrodes than it is in the direction orthogonal thereto.

Claims 1-2 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaufmann et al (US 3,140,967). Kaufmann et al shows an electrode joint (Figures 1

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and 3c) comprising two joined graphite electrodes 1,2 (column 2, line 46) and having a seal or carbon cement paste 9,10 (column 1, line 55) interposed between the electrodes, wherein the seal or carbon cement paste comprises a material which is compressible (as shown in Figures 3b to 3c) and has the oxidation rate equal to or less than that of the electrodes (since carbon and graphite materials are equivalently and similarly materials, they inherently have similar structural and operational characteristics with the oxidation rate for carbon is likely less than of graphite).

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gazda (US 3,814,828). Gazda shows all of the claimed invention including an electrode joint (Figures 1 and 4-5) comprising two joined graphite electrodes 2,20 and having a seal formed of non-gaseous, non expandable fluid such as carbonizable filled the space 5,5a which is interposed between the electrodes (column 4, lines 21-29).

Claims 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Fitton (US 5,645,284). Fitton shows a sealing gasket and method of preparing thereof, in which a sheet 25 of compressed particles of exfoliated graphite is provided and wound to form a spiral wound seal 26 (column 3, line 65 to column 4, line 10), wherein the sealing gasket has an outer diameter defined by ring 30 which is generally equal to the outer diameter of the object to be sealed (such as pipe 11) and a central opening 31 (as shown in Figures 1, 2, and 3a,b), an adhesive or filler 28 is interposed between the layers of the spiral wound sheet 25, the sheet 25 is wound around a bolster 29 having a desired thickness and a diameter equal to the central opening 31 of the sealing gasket as shown in Figure 2.

It is noted that since the recited seal is intended "for use" in an electrode joint or is "suitable for use" between the electrodes, no patentable weight will be given to intended uses such as the electrode joint or between the electrodes in the electrode joint since such electrodes and joint are not germane to the patentability of the claimed process.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Abbott (US 2,810,117) and Pavlisin et al (US 2002/0142164).

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not suggest an electrode joint comprising a seal in

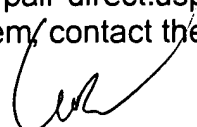
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the form of a spiral wound sheet of compressed particles of exfoliated graphite as recited in claims 5 and 17.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Ba Hoang whose telephone number is (571) 272-4780. The examiner can normally be reached on Mon-fri from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu Ba Hoang
Primary Examiner
Art Unit 3742

March 17, 2005